

# Product Data Sheet



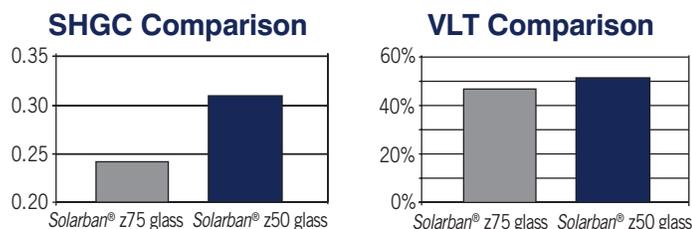
## Aesthetic Description

*Solarban*® z75 and *Solarban*® z50 solar control, low-e glasses provide a steel blue-gray appearance with high levels of visible light transmittance. While the two glasses have a similar appearance, the coatings for each are tuned to provide different levels of solar control performance, enabling architects to specify the optimal choice for local climate and building code demands. Their cool, neutral aesthetic is designed to complement surrounding building materials, including other high-performance glazings.

## Performance Characteristics

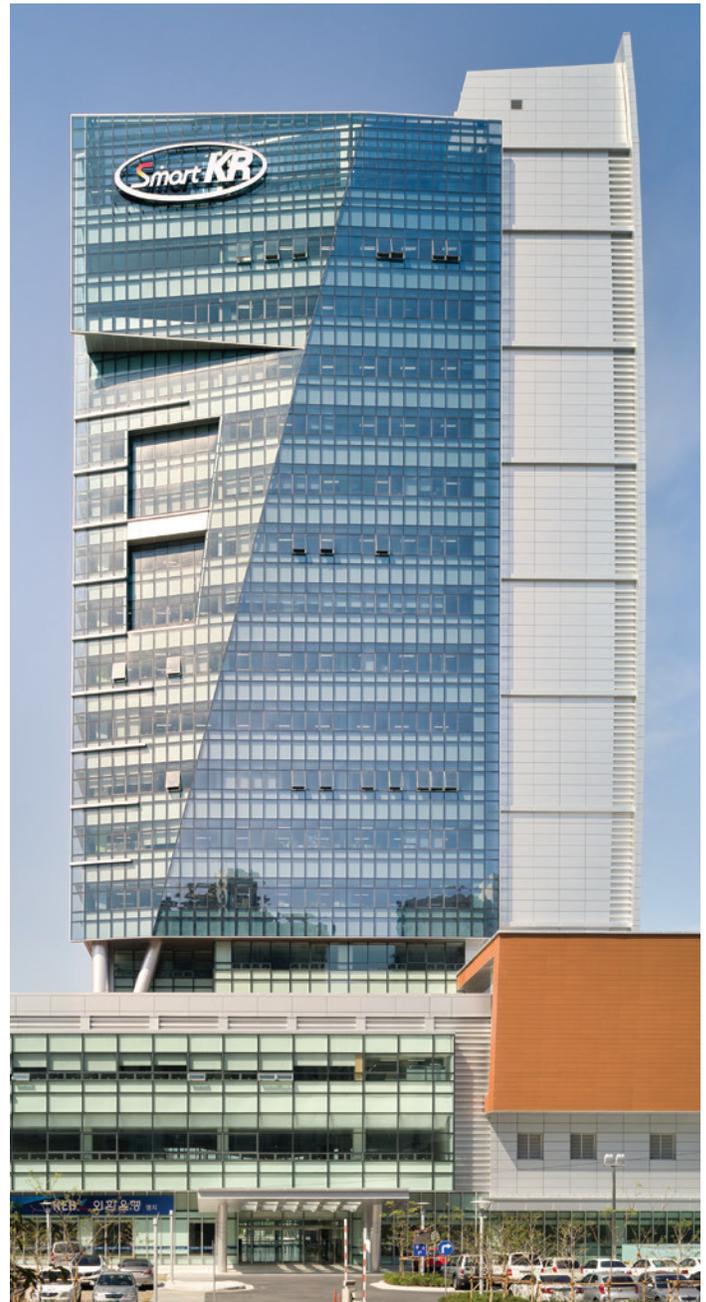
Neutral, cool-gray *Solarban*® z75 and *Solarban*® z50 glasses excel at controlling glare while offering superior daylighting and solar control properties to support sustainable design. The result is a pair of products that complement a wide range of design scenarios with visible light transmittance (VLT) and solar heat gain coefficients (SHGC) that are as good as or better than competing architectural glasses with the same aesthetic.

In a standard 1-inch insulating glass unit (IGU) with clear glass, *Solarban*® z75 glass has a SHGC of 0.24 and VLT of 48 percent, which combine to yield a light to solar gain (LSG) ratio of 2.00. These exceptional solar control characteristics make *Solarban*® z75 glass an excellent choice for warmer climate zones with high air-conditioning demands.



In the same configuration, *Solarban*® z50 glass registers a SHGC of 0.32 and VLT of 51, producing an LSG ratio of 1.59. Consequently, *Solarban*® z50 glass may be better suited to climate zones that are more equally balanced between heating and cooling seasons.

With interior reflectance levels below 12 percent, *Solarban*® z75 and *Solarban*® z50 glasses provide building occupants with clear, natural outdoor views. Similarly, because of their neutral color, *Solarban*® z75 and *Solarban*® z50 glasses harmonize well with other clear and color-neutral solar control, low-e glasses such as *Solarban*® 67 and *Solarban*® R100 glasses.



Korean Register of Shipping

Location: Busan, South Korea | Products: *Solarban*® z75, *Solarban*® R100 Optiblu<sup>®</sup>, *Solarban*® 60 glasses | ICF: Jasan Glass | Architect: SD Architecture Partners | Glazier: Jasan Glass

Solarban® z75 & z50 Glass

**LEED and Sustainable Building**

The center-of-glass insulating performance of Solarban® z75 glass enables most glazing designs to meet 2014 California Title 24 energy standards when used as part of a well-designed and constructed glazing system. In addition, Solarban® z75 and

Solarban® z50 glasses can contribute to achieving credit under LEED v4 (and earlier versions) in the categories of Energy and Atmosphere (EA), Materials and Resources (MR), Indoor Environmental Quality (IEQ) and Innovation in Design (IN) as detailed below.

Category	Feature	Benefit
<b>Energy &amp; Atmosphere (EA)</b>	<p><b>SHGC:</b> 0.24 Solarban® z75 glass 0.32 Solarban® z50 glass</p> <p><b>U-Value:</b> 0.28 Solarban® z75 glass 0.29 Solarban® z50 glass</p>	<p>Helps projects achieve Minimum Energy Performance and ASHRAE 50% Advanced Energy Design Guide (AEDG) energy efficiency targets in LEED v4.</p> <p>Exceptional solar control performance enables buildings to use less energy and control long-term energy costs.</p>
<b>Materials &amp; Resources (MR)</b>	<p>Regional Sourcing</p> <p>Cradle to Cradle Certified™ (Silver Level)</p> <p>Published Corporate Sustainability Statement</p>	<p>Can be sourced regionally throughout North America through Vitro Certified™ Fabricators.</p> <p>Cradle to Cradle Silver certification (Material Ingredient Optimization).</p> <p>Manufacturer has published a stated commitment to sustainable practices.</p>
<b>Indoor Environmental Quality (IEQ)</b>	<p><b>VLT:</b> 48% Solarban® z75 glass 51% Solarban® z50 glass</p>	<p>Provides ample visible light, connecting occupants to undistorted natural outdoor views.</p>
<b>Innovation in Design (IN)</b>		<p>Helps projects earn <i>Innovation in Design</i> credits by contributing to exemplary performance strategies through the selection of environmentally focused products.</p>

**Fabrication and Availability**

Solarban® z75 and Solarban® z50 glasses are available exclusively through the Vitro Certified™ Network. Vitro Certified™ Fabricators can meet tight construction deadlines and accelerate the delivery of replacement glass before, during and after construction. Solarban® z75 and Solarban® z50 glasses are manufactured using the sputter-coating process and can be heat-strengthened, tempered and laminated. Solarban® z50 glass also is available annealed.

**Additional Resources**

Solarban® z75 and Solarban® z50 glasses are Cradle to Cradle Certified™. For more information or to obtain samples of any Vitro Glass product, call 1-855-VTRO-GLS (887-6457) or visit [vitroglazings.com](http://vitroglazings.com).

Vitro Glass is the first U.S. float glass manufacturer to have its products recognized by the Cradle to Cradle Certified™ program, and offers more C2C-certified architectural glasses than any other float glass manufacturer.

Insulating Glass Unit Performance Comparisons   1-inch (25mm) units with 1/2-inch (13mm) airspace and two 1/4-inch (6mm) lites							
Glass Type	Visible Light Transmittance (VLT)	Visible Light Reflectance		(BTU/hr <sup>2</sup> ft <sup>2</sup> °F) NFRC U-Value		Solar Heat Gain Coefficient (SHGC)	Light to Solar Gain (LSG)
		Exterior %	Interior %	Winter Nighttime	Winter Argon		
<b>Solarban® z75 &amp; z50 Solar Control Low-E Glass</b>							
Solarban® z75 (2) Optiblue® + Clear	48	9	12	0.28	0.24	0.24	2.00
Solarban® z50 (2) Optiblue® + Clear	51	8	11	0.29	0.24	0.32	1.59

All performance data calculated using LBNL Window 7.3 software, except European u-value, which is calculated using WinDat version 3.0.1 software. For detailed information on the methodologies used to calculate the aesthetic and performance values in this table, please visit [vitroglazings.com](http://vitroglazings.com) or request our Architectural Glass Catalog.

For more information about Solarban® low-e glass and other Cradle to Cradle Certified™ architectural glasses by Vitro Glass, visit [vitroglazings.com](http://vitroglazings.com), or call 1-855-VTRO-GLS (887-6457).

